

REMARKS

Claims 1-66 were pending. The Examiner rejected claims 1-4, 8-17, and 19-21, and withdrew claims 5-7, 18, and 22-66 from consideration. Applicants have herein cancelled claims 1-66 and added claims 67-96. Support for the new claims can be found throughout the specification, e.g., at page 8, lines 30-33; page 9, lines 14-28; page 10, lines 3-14; page 11, lines 7-10; pages 18-19; page 23, line 31- page 25, line 5; page 34, lines 1-3; page 37, lines 16-24; page 38, lines 21-25; page 39, lines 13-22; page 40, line 26 – page 41, line 41; pages 55-58; page 62; pages 62-63; and page 64. No new matter has been added. Applicants note that in the Response to Restriction Requirement dated November 15, 2004, Applicants elected the species of “Prodrug Compound 2,” whose structure is set forth on pages 37, 53-56, and 62 of the Specification. New claims 81-94 read on the previously elected species. Accordingly, claims 67-96 are pending.

In light of the amendments and the remarks herein, Applicants respectfully request reconsideration and allowance of all claims.

Rejections under 35 U.S.C. § 112, second paragraph

The Examiner rejected claims 1-4, 8-17, and 19-21 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner stated that the metes and bounds of the claims could not be determined because the contrast agent was defined by function only, and that essential structural cooperative relationships of elements were omitted from the claims.

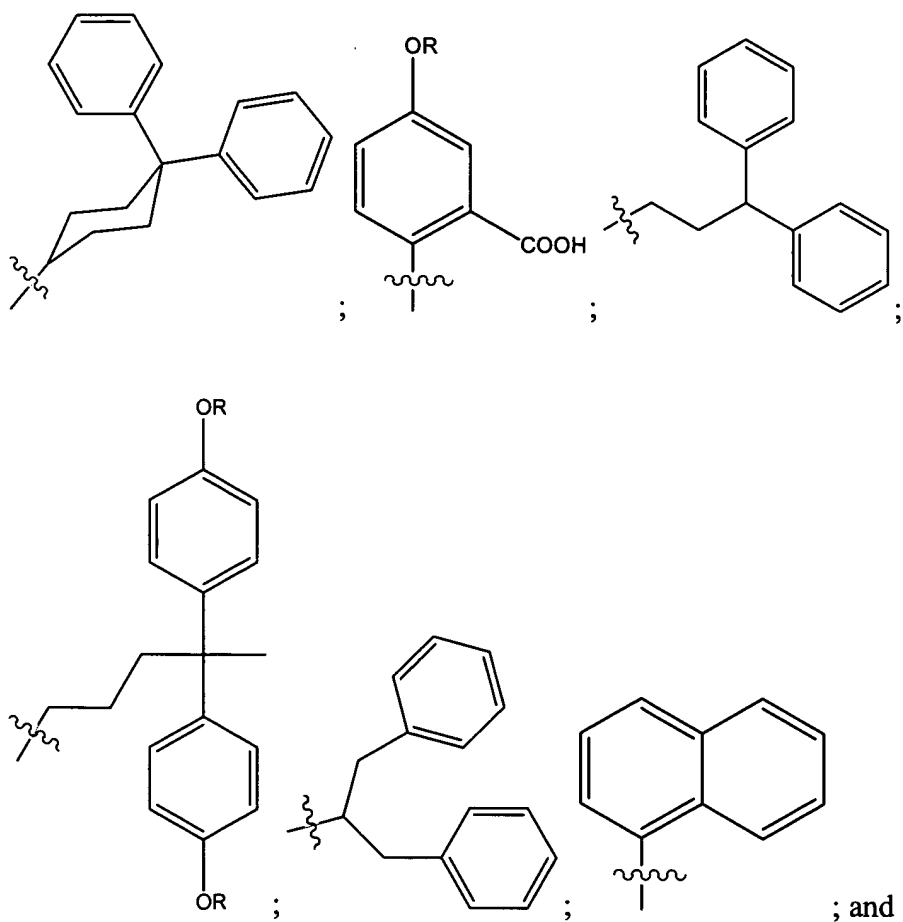
Applicants respectfully disagree with respect to the claims as amended. The standard for definiteness is whether the claim apprises one of ordinary skill in the art of its scope and serves the notice function required by 35 U.S.C. § 112, second paragraph. “Determining whether a claim is indefinite requires an analysis of ‘whether one skilled in the art would understand the bounds of the claim when read in light of the specification. . . . If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, [section]

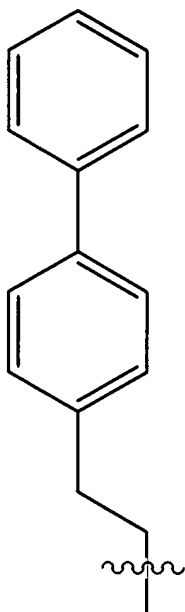
112 demands no more.” Credle v. Bond, 25 F.3d 1566 (Fed. Cir. 1994). See also MPEP § 2173.02

The present claims, when read in light of the specification, reasonably apprise those of skill in the art of the bounds of the claims. Claim 67 recites a composition of matter having the following formula: IEM-PBM-MS-MM. The IEM comprises a complex between:

- (1) a chelating agent selected from the group consisting of DTPA, DOTA, DTPA-BMA, and HP-DO3A, and
- (2) one or more paramagnetic metal ions (M) with atomic numbers 21-29, 42, 44, or 57-83.

The PBM moiety is selected from the group consisting of:





, where at least one aryl ring of each member of the group is substituted with the -MS-MM moiety, and where R can be a linear or branched alkyl group having from 1 to 5 carbons, an aryl group, or a cycloalkyl group. The wavy line signifies the attachment site for the IEM. Claim 67 further recites that the PBM moiety is conjugated to the IEM via a covalent bond to a methylene carbon of the chelating agent of the IEM; that the MS moiety comprises an amide bond; and that the MM moiety is a peptide comprising two or more positively charged amino acids.

Accordingly, Claim 67 recites particular structures for the PBM moieties and defines the structural arrangement of the PBM to the IEM. In addition, the MS moiety, which is required in the claim to be bound to the PBM on an aryl ring of the PBM, is defined as including an amide bond. Support for such a limitation can be found in the specification on pages 34, 37, and 62 (Examples IV and V). Claim 67 further recites that the MM, which is required to be bound to the MS, is a peptide comprising two or more positively charged amino acids. Such a limitation is supported by the specification at page 39 (line 18) and pages 62-63, and by the structures of Prodrug Compounds 2 and 10, which include positively charged Arg, Lys, and tm-Lys residues. Claim 67, in sum, recites clear structural and cooperative relationships for all of the moieties in the claim. Claim 81 similarly recites clear structural and cooperative relationships for all of the moieties in the claim.

Given all of the above, Applicants respectfully assert that the pending claims are definite and request withdrawal of the rejections under 35 U.S.C. § 112, second paragraph.

Rejections under 35 U.S.C. § 102(b)

The Examiner rejected claims 1-4, 8-17, and 19-21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,094,848 ("Brixner" hereinafter). In particular, the Examiner stated that Brixner contained IEM, PBM, MS, and MM moieties as required by claim 1.

Applicants respectfully disagree with respect to the amended claims. A claim is anticipated under § 102(b) only if each and every limitation is disclosed in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 639 (Fed. Cir. 1989) and MPEP § 2131. As indicated above, claim 67 and claim 81 recite particular compounds having particular structures. At no point does Brixner teach or suggest the compounds of claim 67 or claim 81. For example, among other limitations, Brixner does not disclose the PBM structures as set forth in the claim. Accordingly, Brixner cannot anticipate the pending claims. Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102(b).

Applicant : Randall B. Lauffer et al.
Serial No. : 10/758,729
Filed : January 16, 2004
Page : 16 of 16

Attorney's Docket No.: 13498-019003 / MET-
5/Continuation

CONCLUSION

Applicants respectfully assert that all claims are in condition for allowance, which action is requested. The Examiner is invited to telephone the undersigned attorney if such would expedite prosecution.

Enclosed is a \$950 check including the following: \$500.00 for excess claim fees and \$450.00 for the Petition for Extension of Time fee (2 months). Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 5/23/05

Teresa A. Lavoie
Teresa A. Lavoie, Ph.D.
Reg. No. 42,782

Fish & Richardson P.C., P.A.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (612) 288-9696